

CLAIMS

Please cancel claims 1-4, 6-10, and 12-22 and add claims 23-43 as follows:

1.-22. (Cancelled)

23. (New) A method for quantifying asymmetry of joint angles of two limbs during a movement, comprising:

determining a first set of data that comprises angles of a joint of a first limb as the first limb performs the movement;

determining a second set of data that comprises angles of a joint of a second limb as the second limb performs a similar movement, wherein the two limbs comprise the first limb and the second limb;

generating a cyclogram based on the first set of data and the second set of data; and

determining a value of a characteristic of the generated cyclogram.

24. (New) The method of claim 23 wherein the first limb is part of one body and wherein the second limb is part of the same body.

25. (New) The method of claim 23 wherein the first limb is part of one body and wherein the second limb is part of a different body.

26. (New) The method of claim 23 wherein the first limb comprises a leg.

27. (New) The method of claim 23 wherein the first limb comprises an arm.

28. (New) The method of claim 23 wherein the movement comprises one or more cycles.

29. (New) The method of claim 23 wherein the characteristic of the generated cyclogram comprises an area of the generated cyclogram.

30. (New) The method of claim 23 wherein the characteristic of the generated cyclogram comprises an orientation of the generated cyclogram.

31. (New) The method of claim 23 wherein the characteristic of the generated cyclogram comprises a minimum moment magnitude of the generated cyclogram.

32. (New) The method of claim 23 further comprising comparing the determined value to a value of the characteristic of a cyclogram representing a baseline movement.

33. (New) The method of claim 32 wherein the baseline movement comprises a perfectly symmetrical movement.

34. (New) A method for quantifying asymmetry of joint angular velocities of two limbs during a movement, comprising:

- determining a first set of data that comprises angular velocities of a joint of a first limb as the first limb performs the movement;
- determining a second set of data that comprises angular velocities of a joint of a second limb as the second limb performs a similar movement, wherein the two limbs comprise the first limb and the second limb;
- generating a velocity diagram based on the first set of data and the second set of data; and
- determining a value of a characteristic of the generated velocity diagram.

35. (New) The method of claim 34 wherein the first limb is part of one body and wherein the second limb is part of the same body.

36. (New) The method of claim 34 wherein the first limb is part of one body and wherein the second limb is part of a different body.

37. (New) The method of claim 34 wherein the first limb comprises a leg.

38. (New) The method of claim 34 wherein the first limb comprises an arm.

39. (New) The method of claim 34 wherein the movement comprises one or more cycles.

40. (New) The method of claim 34 further comprising comparing the determined value to a value of the characteristic of a velocity diagram representing a baseline movement.

41. (New) The method of claim 40 wherein the baseline movement comprises a perfectly symmetrical movement.

42. (New) A system for quantifying asymmetry of joint angles of two limbs during a movement, comprising:

- a first determination module configured to determine a first set of data that comprises angles of a joint of a first limb as the first limb performs the movement;
- a second determination module configured to determine a second set of data that comprises angles of a joint of a second limb as the second limb performs a similar movement, wherein the two limbs comprise the first limb and the second limb;
- a generation module configured to generate a cyclogram based on the first set of data and the second set of data; and
- a third determination module configured to determine a value of a characteristic of the generated cyclogram.

43. (New) A computer program product for quantifying asymmetry of joint angles of two limbs during a movement, including a computer readable medium, which comprises instructions to perform the following:

- determining a first set of data that comprises angles of a joint of a first limb as the first limb performs the movement;
- determining a second set of data that comprises angles of a joint of a second limb as the second limb performs a similar movement, wherein the two limbs comprise the first limb and the second limb;
- generating a cyclogram based on the first set of data and the second set of data; and
- determining a value of a characteristic of the generated cyclogram.